

Program 3

Activity & Login

Activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://schemas.andr

oid.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="100dp"

android:text="SIGN UP"

android:textColor="@android:color/background\_dark"

android:textSize="22dp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="30dp"

android:layout\_marginTop="50dp"

android:text="USERNAME"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView2" />

<TextView

android:id="@+id/textView4"

android:layout\_width="82dp"

android:layout\_height="34dp"

android:layout\_marginTop="50dp"

android:text="PASSWORD"

app:layout\_constraintStart\_toStartOf="@+id/textView3"

app:layout\_constraintTop\_toBottomOf="@+id/textView3" />

<EditText

android:id="@+id/txt\_username"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="40dp"

android:layout\_marginEnd="10dp"

android:ems="10"

android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="@+id/textView3"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toEndOf="@+id/textView3"

app:layout\_constraintTop\_toTopOf="@+id/textView3" />

<EditText

android:id="@+id/txt\_password"

android:layout\_width="0dp"

android:layout\_height="40dp"

android:layout\_marginTop="26dp"

android:ems="10"

android:inputType="textPassword"

app:layout\_constraintEnd\_toEndOf="@+id/txt\_username"

app:layout\_constraintStart\_toStartOf="@+id/txt\_username"

app:layout\_constraintTop\_toBottomOf="@+id/txt\_username" />

<Button

android:id="@+id/btn\_signup"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="30dp"

android:text="Sign Up"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/txt\_password" />

</androidx.constraintlayout.widget.ConstraintLayout>

Activity\_login.xml

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://schemas.andr

oid.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".LoginActivity">

<TextView

android:id="@+id/textView7"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="50dp"

android:text="Login"

android:textSize="22dp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView9"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="30dp"

android:layout\_marginTop="50dp"

android:text="Username"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView7" />

<EditText

android:id="@+id/txt\_login\_username"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="20dp"

android:layout\_marginEnd="20dp"

android:ems="10"

android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="@+id/textView9"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toEndOf="@+id/textView9"

app:layout\_constraintTop\_toTopOf="@+id/textView9" />

<TextView

android:id="@+id/textView10"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="30dp"

android:layout\_marginTop="50dp"

android:text="PASSWORD"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView9" />

<EditText

android:id="@+id/txt\_login\_password"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="textPassword"

app:layout\_constraintEnd\_toEndOf="@+id/txt\_login\_username"

app:layout\_constraintStart\_toStartOf="@+id/txt\_login\_username"

app:layout\_constraintTop\_toTopOf="@+id/textView10" />

<Button

android:id="@+id/btn\_login\_signin"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="50dp"

android:text="Login"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/txt\_login\_password" />

</androidx.constraintlayout.widget.ConstraintLayout>

MainActivity.java

package com.example.parta.program3;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import java.util.regex.Matcher;

import java.util.regex.Pattern;

public class MainActivityextends AppCompatActivityimplements View.OnClickListener {

EditTexttxtUsername;

EditTexttxtPassword;

Button btnSignup;

String regularExpression="^(?=.\*[A-Z])(?=.\*[a-z])(?=.\*\\d)(?=.\*[@$!])[A-Zaz\\d@$!]{8,}$";

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

txtUsername=(EditText)findViewById(R.id.txt\_username);

txtPassword=(EditText)findViewById(R.id.txt\_password);

btnSignup=(Button)findViewById(R.id.btn\_signup);

btnSignup.setOnClickListener(this);

}

public void onClick(View v)

{

String username=txtUsername.getText().toString();

String password=txtPassword.getText().toString();

if(validatePassword(password)) {

Bundle bundle = new Bundle();

bundle.putString("user", username);

bundle.putString("Lab@2018", password);

Intent it = new Intent(this, LoginActivity.class);

it.putExtra("data", bundle);

startActivity(it);

}

else

{

Toast.makeText(getBaseContext(), "Invalid Password",

Toast.LENGTH\_LONG).show();

}

}

public booleanvalidatePassword(String password)

{

Pattern pattern= Pattern.compile(regularExpression);

Matcher matcher=pattern.matcher(password);

return matcher.matches();

}

}

LoginActivity.java

package com.example.parta.program3;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

public class LoginActivityextends AppCompatActivityimplements View.OnClickListener {

EditTexttxtLoginUsername;

EditTexttxtLoginPassword;

Button btnLogin;

String user,pass;

int count=0;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_login);

txtLoginUsername=(EditText)

findViewById(R.id.txt\_login\_username);

txtLoginPassword=(EditText)

findViewById(R.id.txt\_login\_password);

btnLogin=(Button)findViewById(R.id.btn\_login\_signin);

btnLogin.setOnClickListener(this);

Bundle bundle=getIntent().getBundleExtra("data");

user=bundle.getString("user");

pass=bundle.getString("Lab@2018");

}

public void onClick(View v)

{

String user1=txtLoginUsername.getText().toString();

String pass1=txtLoginPassword.getText().toString();

if(user.equals(user1)&&pass.equals(pass1))

{

Toast.makeText(this,"Login Successful",Toast.LENGTH\_LONG).show();

}

else

{

count++;

if(count==3)

{

btnLogin.setEnabled(false);

Toast.makeText(this, "Failed Login Attempts",Toast.LENGTH\_LONG).show();

}

else

{

Toast.makeText(this,"Login Failed "+count

,Toast.LENGTH\_LONG).show();

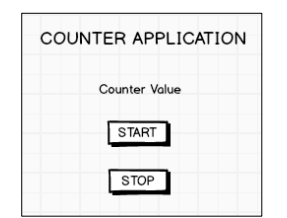
}

}

}

}

Program 5 Write a program to create an activity with two buttons START and STOP. On Pressing of the START button, the activity must start the counter by displaying the numbers from One and the counter must keep on counting until the STOP button is pressed. Display the counter value in a TextViewcontrol.



activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://schemas.andr

oid.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:id="@+id/lbl\_counter"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="100dp"

android:text="Counter Application"

android:textSize="36sp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/lbl\_text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="30dp"

android:text="Counter Value"

android:textColor="@color/colorAccent"

android:textSize="30sp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView" />

<Button

android:id="@+id/btn\_start"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="20dp"

android:text="Start"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/lbl\_text" />

<Button

android:id="@+id/btn\_stop"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="30dp"

android:text="Stop"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/btn\_start" />

</androidx.constraintlayout.widget.ConstraintLayout>

MainActivity.java

package com.example.program5;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.os.Handler;

import android.os.Message;

import android.view.View;

import android.widget.Button;

import android.widget.TextView;

import org.w3c.dom.Text;

public class MainActivityextendsAppCompatActivityimplementsView.OnClickListener {

TextViewlblCounter;

Button btnStart,btnStop;

int counter=0;

booleanrunning=false;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

lblCounter=(TextView)findViewById(R.id.lbl\_text);

btnStart=(Button)findViewById(R.id.btn\_start);

btnStop=(Button)findViewById(R.id.btn\_stop);

btnStop.setOnClickListener(this);

btnStart.setOnClickListener(this);

}

public void onClick(View v)

{

if(v.equals(btnStart))

{

counter=0;

running=true;

new MyCounter().start();

}

else if(v.equals(btnStop))

{

running=false;

}

}

Handler handler=new Handler()

{

public void handleMessage(Message m)

{

lblCounter.setText(String.valueOf(m.what));

}

};

class MyCounterextendsThread

{

public void run()

{

while(running)

{

counter++;

handler.sendEmptyMessage(counter);

try {

Thread.sleep(1000);

}

catch(Exception e) { }

}

}

}

}

